810-5; Rev. D, Volume II

Deep Space Network/Flight Project Interface Design Handbook

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DOCUMENT 810-5, REV. D; VOL. II
DSN/FLIGHT PROJECT
INTERFACE DESIGN

INT-10 (PC), Rev. A
HANDBOOK INTRODUCTION

(Insert this modular document in your 810-5, Rev. D; Vol. II Handbook)

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A. PURPOSE

This Volume II handbook consists of a set of "proposed capability" modules prepared for use by flight projects in obtaining an early assembly of the latest technical design parameters planned by the Deep Space Network.

The title designator of each Volume II module is appended with the letters (PC) to indicate that the subject matter is a proposed capability and to differentiate it from the "as-built" document modules of Volume I. As implementation of the proposed capabilities of each Volume II module is initiated, a revised Volume I module reflecting the new capabilities will be distributed.

B. SCOPE

As a part of the overall Document 810-5, Rev. D, publication, this volume has been approved by the JPL TDA Office and is presented as a source of interface design data for all flight projects using the Deep Space Network.

C. CONSTRAINTS

In seeking viable solutions to telecommunications or data processing problems, flight projects are not necessarily constrained by the effective design parameters contained in Volume I or the proposed capabilities of this volume. Flight project requirements, which could result in DSN interface design beyond that implied by Volume I, however, will be subject to negotiation with the JPL Telecommunications and Data Acquisition (TDA) Office.

Specific DSN commitments to support individual flight projects must be coordinated and documented separately. This handbook is not a commitment document.

D. MODULE REVISION AND CONTROL

The individual modules of either Volume I or Volume II of the initial issue and of any revisions should be submitted with a written request for approval to the TDA Engineering Manager, JPL Code 430. The modules contained in these volumes are approved for publication under the authority of the cover page signatories. Revisions are indicated by a revision letter following the module designator.

E. ABBREVIATIONS

If an abbreviation or acronym used in this handbook is not defined in an illustration or accompanying text, the definition may be found in JPL Document 810-3, DSN Abbreviations and Acronyms.

F. MARK IVA TERMINOLOGY

This document ordinarily uses the term Deep Space Station (DSS) to identify the "front end" function of a Deep Space Communications Complex (DSCC). During the Mark IVA implementation period, the term Front End Area (FEA) is often used for the same purpose. Both terms identify an antenna, its support structure and associated electronics. The term Signal Processing Center (SPC) identifies the remaining common processing equipment at a DSCC.

G. APPLICABLE DOCUMENTS

The latest issues of the following documents are directly applicable to and/or furnish source requirements of this handbook:

(1) DSN Standard Practice - Deep Space Network Documentation; JPL Document 810-1

(2) DSN Standard Practice - Glossary of Abbreviations and Acronyms; JPL Document 810-3

(3) DSN General Requirements and Plans - General System Requirements; JPL Document 820-20

(4) DSN System Requirements - JPL Document 821 series

(5) Network Operations Control Center Subsystem Requirements - JPL Document 822 series

(6) Ground Communications Facility Subsystem Requirements - JPL Document 823 series

(7) Deep Space Station Subsystem Requirements - JPL Document 824 series

(8) DSN Subsystem Requirements; JPL Document 825 series